

ABSTRACT

A method is disclosed for producing a high-resolution patterned layer on a substrate for use in making electronic devices. The method comprises micro-printing an inked pattern on a substrate with use of a rotatable stamp; passing the substrate to an apparatus for etching or depositing materials on the substrate, where the inked pattern guides the etching or deposition of material; and then optionally removing the inked pattern from the substrate with the application of heat, ultraviolet light, or wet chemical means. A high-quality transistor with a 2-micron channel length may be fabricated using the inventive method. The method is compatible with rapid, reel-to-reel patterning and useful for a range of applications.